

Mechanisms of Development in Plants and Animals

A seminar series (UE Europe)

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The course comprises **four 1-hour sessions daily**, including two **introductory classes** (held in the 'Amphi K' or 'Amphi I') and two **seminars** (in the *Salle des thèses*)

June 2nd (Monday)

- 09.30 Introductory class on the biophysics of growth in walled systems (**Braybrook**)
- 10.30 Introductory class on regeneration in vertebrates (**Begemann**)
- 13.30 **Siobhan Braybrook** (Cambridge, UK)
"Multiscale shape growth in plants"
- 14.30 **Gerrit Begemann** (U. Bayreuth, Germany)
"Retinoic acid controls various aspects of zebrafish fin regeneration"

June 3rd (Tuesday)

- 09.30 Introductory class on spatial modeling intercellular molecular interactions and mechanics (**Jönsson**)
- 10.30 Introductory class on somitogenesis and on amphioxus as a model system for evo-devo studies (**Bertrand**)
- 13.30 **Henrik Jönsson** (Cambridge, UK)
"Understanding plant shoot development - a computational morphodynamics approach"
- 14.30 **Stéphanie Bertrand** (Laboratoire Arago, Banyuls, France)
"Evolution of somitogenesis in the chordate lineage"

June 4th (Wednesday)

- 09.30 Introductory class on plant domestication and development (**Parcy**)
- 11.30 Introductory class on hydra and metazoan body axes (**Holstein**)
- 13.30 **Francois Parcy** (CEA, Grenoble, France)
"An integrated structural approach to flower development"
- 14.30 **Thomas Holstein** (U. Heidelberg, Germany)
"The Hydra organizer and the evolution of metazoan body axes"

June 5th (Thursday)

- 09.30 Introductory class on the genetics of the shoot meristem (**Lohmann**)
- 10.30 Introductory class on morphogenetic gradients in the Drosophila embryo (**Dostatni**)
- 13.30 **Jan Lohmann** (U. Heidelberg, Germany)
"A regulatory framework of plant stem cell control"
- 14.30 **Nathalie Dostatni** (Institut Curie, Paris, France)
"Transcriptional dynamics in the Drosophila embryo"

June 6th (Friday)

- 09.30 Introductory class on plant embryo development - morphogenesis in miniature (**Weijers**)
- 10.30 Introductory class on Garris and evo-devo (**Khila**)
- 13.30 **Dolf Weijers** (Wageningen U., Netherlands)
"Genetic control of growth and patterning in the plant embryo"
- 14.30 **Abderrhaman Khila** (IGFL, ENS Lyon)
"An integrative approach to the study of animal diversity"

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June 9th (Monday)

National holiday

June 10th (Tuesday)

09.30 Introductory class on the mechanisms of organ specification in flowers (**Wellmer**)

10.30 Introductory class: "From Gene to Force" (**Bellaïche**)

13.30 **Frank Wellmer** (Trinity College Dublin, Ireland)

"Repression of the leaf development program by floral organ identity factors"

14.30 **Yohanns Bellaïche** (Institut Curie, Paris, France)

"Epithelial tissue dynamics"

June 11th (Wednesday)

09.30 Introductory class on the evolution on studying character evolution in plants (**Harrison**)

10.30 Introductory class on left-right asymmetry (**Noselli**)

13.30 **Jill Harrison** (Cambridge, UK)

"Branching in plant evolution"

14.30 **Stéphane Noselli** (Institut Valrose, Nice, France)

"Left-Right asymmetry in *Drosophila*"

June 12th (Thursday)

09.30 Introductory class on the genetic control and evolution of leaf shape (**Laufs**)

10.30 Introductory class on mechanics and morphogenesis (**Lenne**)

13.30 **Patrick Laufs** (INRA, Versailles, France)

"Leaf morphogenesis in *Arabidopsis*, from genes to shape"

14.30 **Pierre-François Lenne** (IBDM, Marseille, France)

"Mechanics of cell contacts during tissue morphogenesis"